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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/055,568	01/22/2002	Mou-Shiung Lin	MEGP0004USA	6093
27765	7590	10/31/2008		
NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION				
P.O. BOX 506				
MERRIFIELD, VA 22116				
EXAMINER				
MITCHELL, JAMES M				
ART UNIT		PAPER NUMBER		
2813				
NOTIFICATION DATE		DELIVERY MODE		
10/31/2008		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

winstonhsu.uspto@gmail.com

Patent.admin.uspto.Rcv@naipo.com

mis.ap.uspto@naipo.com.tw

### Office Action Summary

**Application No.**

10/055,568

**Applicant(s)**

LIN ET AL.

**Examiner**

JAMES M. MITCHELL

**Art Unit**

2813

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 219-223, 228, 232, 236, 238-242, 250-257, 259, 260 and 262-267 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 219-223, 228, 232, 236, 238-242, 250-257, 259, 260 and 262-267 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_



### **DETAILED ACTION**

This office action is in response to applicant's request for continued examination filed June 27, 2008.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 219-223, 228, 232, 236, 238-242, 250-257, 259, 260 and 262-267 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsai (U.S. 6,180,445) in combination with Korman (U.S. 5,959,357).

Tsai discloses: (Fig. ) discloses:

(cl. 219) A chip package comprising: one die (10) having a first top surface at a horizontal level; a first insulating layer (15, 23) over said horizontal level, over said only

one die, over said substrate and across an edge of said only one die, wherein said first insulating layer comprises comprising a first portion over said only one die and a second portion over said substrate but not over said only one die; a patterned circuit layer (19) over said first insulating layer, over said horizontal level, over said only one die and over said substrate, wherein said patterned circuit layer is connected (via 17) to said only one die through a first opening in said first insulating layer, an inductor (22) over said horizontal level and over said first insulating layer; and a second insulating layer (42) on said inductor;

(cl.223) said patterned circuit layer connects multiple portions of said only one die through said first opening and through a second opening in said first insulating layer (e.g. electrical connection thorough 17 to die therefore electrically conductive vias are formed);

(cl. 228) wherein said first insulating layer comprises polyimide (Abstract),

Tsai does not show an adhesive material joining said substrate and said only one die.

However Korman discloses attaching a die to a substrate (24 with a thermally conductive past (e.g. to provide heat dissipation).

It would have been obvious to one of ordinary skill in the art to incorporate forming a metal substrate (22) on the die of Tsai in order to provide a heat dissipation as taught by Korman.(Col. 4 , Lines 55-56)

With respect to claim 220 that circuit layer comprises a second trace having a thickness greater than that of said first trace. Applicant has not disclosed that the

dimensions are for a particular unobvious purpose, produce an unexpected result, or are otherwise critical. As such, the selected dimensions would have been obvious, since it has been held that mere dimensional limitations are prima facie obvious absent a disclosure that the limitations are for a particular unobvious purpose, produce an unexpected result, or are otherwise critical. See, for example, *In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955); *In re Rinehart*, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976); *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984); *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

With respect to the intended use limitation of claim 221 or 222 that the circuit layer comprises a power bus, the product is the same as claimed and therefore capable of performing in the same manner. The claim is unpatentable, since it has been held that the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

With respect to the claim 232 that said first insulating layer comprises benzocyclobutene (BCB), examiner takes official notice that BCB as an insulating material in ILD are known in the art. As such, its selection would have been obvious to one of ordinary skill in art. See MPEP 2144.07.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES M. MITCHELL whose telephone number is (571)272-1931. The examiner can normally be reached on M-F 8:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mathew Smith can be reached on (571) 272-1907. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

October 27, 2008  
/James M. Mitchell/  
Examiner, Art Unit 2813